

Dunn Tire and Rapids Bowling Center Site
A Summary Based on the Records in Our Files; Subject to Revision
As of ~~9/19/06~~ *2/27/13*

Location: Dunn Tire – 9540 Niagara Falls Boulevard
Rapids Bowling Center – 9524 Niagara Falls Blvd.
City of Niagara Falls, Niagara County

Size of Site: About 1 acre (rough estimate, based on 1979 sketch)

Previous Baia Pontiac
Businesses: Pine Bowl

Contaminants: Natural uranium (no data on decay products except Ra-226)
Radium-226 (not in equilibrium in 1979 sample)
Thorium-232, with decay products at or near equilibrium (based on date of fill)

Source: Site believed to have been filled, in 1961, with slag produced by Union Carbide facility on 47th Street, Niagara Falls. Union Carbide was issued a source material license from the Atomic Energy Commission in 1961, due to the high uranium and thorium content of the ore, which Union Carbide processed to remove niobium.¹

History: 1962 – Parts of two buildings and a parking lot were constructed on the fill.

1978 - The US Department of Energy performed an aerial radiological survey of the Niagara Falls area. This was one of 15 properties on which elevated radiation levels were detected. All but this site had levels between 3 and 7 times background; here, the levels were 25 to 50 times background.

April 1979 – DOH and DEC staff took radiation measurements and collected samples in the parking lot.

May 1979 – DOH staff surveyed the interior of the buildings and found elevated radiation levels. They concluded that the radiation dose to a worker inside the car agency would be 0.2 rems per year, which was less than radiation dose standard at the time, 0.5 rems per year.

¹In 1965, the DOH issued to Union Carbide an exemption to the Health Department regulations, authorizing the burial of slag containing thorium oxide and uranium oxide in a burial site described as “an area of 540 feet by 1500 feet, located just North of Pine Avenue Boulevard, between Packard Road and 64th Street in the City of Niagara Falls.” This is now the “thorium disposal area” on the CECOS International site in Niagara Falls. We will collect some samples from nearby monitoring wells when CECOS does its semi-annual sampling this month.

August 6, 1979 – DOH Commissioner Axelrod wrote to the site owner, “The present use of the property does not constitute a hazard either to the workers or the general public that would necessitate any immediate remedial action in order to protect the public health and safety.” The letter also referred to an advisory committee that was in the process of examining the environmental radiation levels in the State and would develop, as needed, criteria for required protective actions. The site would be re-examined in light of those criteria. (Neither was done, as far as we can tell.) The letter also requested the owners cooperation in maintaining the surface of the parking lot, and notifying DOH if the property is sold.

1998 – The bowling alley was up for sale, and a consultant for the owner contacted DEC radiation staff about the contamination in the parking lot. We offered to advise or assist them in surveying the parking lot. The owner did not take us up on the offer.

2000 – The new owner notified the DOH that they had purchased the property and that the property use would not change.

January 2001 – An underground tank was removed from the Dunn Tire site, and petroleum contaminated soil was found underneath. The spill was reported to Region 9. Initially, DOH staff at the scene advised the owners that the disturbed slag would have to be disposed of as radioactive waste.

May 2001 – Due to the cost of disposal, and the fact that the disturbed material was a very small part of the total inventory, DOH, with our concurrence, allowed them to put the material back in the excavation, but added that this would not be permanent solution.

2004 – The owner’s spill contractor consulted with DOH on radiation protection issues. In September 2004, DOH surveyed part of the area that had been remediated. In November 2004 the DEC Spill Response Unit deemed the spill site “inactive” (no further petroleum remediation required at this time) based on the removal of petroleum sources (tanks), lack of immediate threat posed by residual petroleum remaining on the site, and potential threats posed by exposing (excavation) subsurface radioactive materials.

September 15, 2006 – DOH performed a radiation survey inside Dunn Tire and Rapids Bowling Center and found elevated radiation readings in an office and a store room that had not been surveyed previously. DOH plans further surveys to assess this. A worst-case estimate of the exposure to a person occupying the office is about 300 mrem per year, which is greater than the current dose limit of 100 mrem/yr for exposures to the general public.

Next Steps: DEC staff will accompany DOH staff when they return to the site. Our purpose will be to do a preliminary assessment of the extent of contamination outside and to collect some samples for analysis.

History (cont.): September 21, 2006 – DEC radiation staff performed a limited scoping survey of the Rapids Bowl and Dunn tire parking lots at 9524 and 9540 Niagara Falls Boulevard. A sample was taken behind Dunn Tire and another behind Rapids Bowl. Elevated readings on both properties highlight the need for an extensive survey.

October 2-4, 2006 – DEC radiation staff surveyed the entire paved areas on the Dunn Tire property, front and back and 95% of the paved areas on Rapids Bowl property. Contact dose rate and waist height readings were taken and documented on a site map.

October 3, 2006 – DEC radiation staff visited Holy Trinity Cemetery to resurvey the areas identified in 1980, look for additional anomalies and obvious differences between then and now, and to obtain a slag sample(s). The slag pile identified in 1980 is no longer present. The area where the proposed road beds are, used to be brush hogged once or twice a year. The area is now a well manicured lawn and the local children play in this area. Waist height readings of the road beds exhibited a range of 200-450 uR/hr and maximum contact reading of 750 uR/hr. Loose slag is evident in both road beds. An additional pile of debris exhibiting elevated readings was discovered in the cemetery spoils area. Here they dispose of brush, grass clippings, broken headstones etc. Instrument problems prevented a thorough survey on this visit.

November 1, 2006 – DEC radiation staff surveyed pallets which were scattered amongst slag which was exposed when the parking lot was scraped in preparation for new paving behind Dunn Tire on Niagara Falls Blvd. 13 full pallets and 7 partial pallets were surveyed and marked for disposal to a local landfill. On November 21, 2006 a letter was drafted and sent to Gregory Gismondi of Amendola Properties stating the pallets were free of radioactivity granting approval for disposal in the local landfill.

May 9, 2007 – DEC radiation staff visited Holy Trinity Cemetery to perform a follow-up survey of the debris pile discovered on October of 2006. Elevated readings were verified and a five minute gamma spec analysis was obtained utilizing the Easy Spec. The material was ID'd as containing Radium 226. The survey we performed was non-intrusive. A more thorough characterization of what material is present would involve excavation of the debris pile.

May 9, 2007 – DEC radiation staff visited the 9254 and 9540 Niagara Falls Blvd locations to complete the parking lot survey. 44 additional parking spots were surveyed recording contact and waist height dose rate readings. While performing this survey, it became obvious the impacted areas extended beyond the paved parking lots. A limited walkover survey, utilizing 2221's and 2x2 NaI probes, was conducted extending to the property fence of the Summit Inn (west of Rapids Bowl), approximately 150 feet north of the Dunn Tire and Rapids Bowl parking lots, and east to the First Family of God church parking lot. Elevated readings and debris piles were discovered throughout the area. A more thorough survey appears to be necessary here to provide a thorough characterization of the area.

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Health officials probe radiation in former Falls tire store

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NIAGARA FALLS – Local and state health officials are working on ways to reduce radiation levels inside a former Niagara Falls Boulevard tire store in hopes of improving chances of its reuse.

The vacant former Dunn Tire store at 9540 Niagara Falls Blvd. is built over fill containing radioactive slag, said James J. Devald, county environmental health director.

"It's the same radioactive slag that's under other areas in Niagara Falls, [such as] Lewiston Road," Devald said.

Larger amounts of radioactive material than expected delayed the reconstruction of that street for several years.

The slag lies beneath the parking lot and part of the building, and extends beneath part of the parking lot of the Rapids Bowling Center next door, Devald told the Board of Health last week.

"We've known about it for years," Devald said. "There was one area of the [tire] building where they were advised not to have an office. They used it for tire storage."

However, Devald said Dunn's decision to close the store was made for business reasons only. Dunn Tire did not respond to a request for comment emailed to the company.

Devald said he and the state Health Department will meet with the building's owner, GMA Properties, to talk about how to reduce the radiation inside the store.

No remediation is planned, Devald said. The state Health Department was unable to provide further information.

A spokeswoman for the state Department of Environmental Conservation said the DEC doesn't list the store on any of its hazard or remediation registries.

The former tire store is assessed at \$400,000, according to the city's online tax roll.

In other environmental matters at Thursday's Board of Health session, Devald said a statewide map of cancer clusters, listing more than 20 types of cancer, is now online at the state Health Department website.

It shows proximity of cancer cases to environmentally hazardous sites, and can be zoomed down to the local level, Devald said.

He also told the board that some people with fishing licenses have been mailed information about taking part in a state study of the health impacts of eating fish caught in Lakes Erie and Ontario and the Niagara River.

The goal is to sign up 300 anglers living in Erie, Niagara and Monroe counties, along with 200 Burmese refugees now living in Buffalo.

Participants will have to give blood and urine samples and consent to be interviewed about their fish consumption. The testing will measure the levels of chemicals and heavy metals in the bodies of the study subjects.

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